

GUIDELINES
FOR
MARINE TURTLE PERMIT HOLDERS

~ Nest Protection Management ~

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The video, “Sea Turtle Nest Protection, a Training Guide”, should be used in conjunction with those topics marked with an asterisk.

INFORMATION FOR MARINE TURTLE PERMIT HOLDERS

The South Carolina Department of Natural Resources (SCDNR) issues permits for activities involving marine turtles in South Carolina under authority granted to the state through Cooperative Agreements with the U.S. Fish and Wildlife Service and National Marine Fisheries Service under Section 6 of the Endangered Species Act (ESA). All activities must be authorized under Chapter 15 of the South Carolina Code of Laws. Each permit consists of a principal permit holder, qualified personnel with Letter of Authorization (LOA), and a list of authorized activities. Permit holders are expected to know the conditions and responsibilities associated with their permit. Principal permit holders are responsible for ensuring that SCDNR staff or an experienced permit holder thoroughly and properly trains all personnel with LOA's listed under their permit. Permit holders are authorized to conduct specific activities depending upon experience, area of investigation and/or demonstrated marine turtle management needs. Only those activities specifically listed on the permit are authorized.

A permit issued by the SCDNR or a letter of authorization (LOA) from the permit holder must be in the possession of each person at all times while conducting authorized activities. You should also carry identification that will verify that you are the named permit holder. Some wildlife or public safety officers or concerned individuals may perceive that your activity is harmful or unlawful. Please ensure that your response to such situations is thoughtful and reflects the special responsibilities associated with your permit.

The permit does not allow you to act as an employee of SCDNR. Please do not represent yourself as a wildlife or conservation officer, especially if you are talking with the media. Distinctive, identifying clothing is encouraged and should display the logo or name of your organization or marine turtle project.

Occasionally, a beach nourishment project may occur in your survey area. All such projects are reviewed by SCDNR, the U.S. Fish and Wildlife Service and the U.S. Army Corps of Engineers and operate under specific requirements that consider the nature, timing and sequence of beach nourishment activities to provide protection to marine turtles and their nests or hatchlings. If you are approached by a local contractor, individual, or other entity and asked to establish a marine turtle nest relocation or nest protection program in conjunction with a beach construction project (including beach cleaning) contact your Marine Turtle Program Coordinator immediately.

Contact your project coordinator and the SCDNR Hotline number, 1-800-922-5431 if you think unlawful activities are being conducted, such as egg poaching or other disturbances to nests or nesting female turtles. **Do not notify the news media.**

Requests for expansion of authorized activities must be made in advance by phone to the S. C. Marine Turtle Program Coordinator, and an amendment to the application may be required.

The principal permit holder is required to submit the following 3 summaries to SCDNR at the end of each sea turtle season in keeping with the following schedule:

- 1) Project Summary Form due December 31
- 2) Annual Project Report (following the required outline) due January 31
- 3) Nest Data Spreadsheet due January 31

Failure to submit reports in a timely manner may delay processing your application for the following year.

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NESTING SURVEYS

This activity involves the patrolling of a specific beach area (listed on the permit) to identify, enumerate, and evaluate nesting and non-nesting emergences (false crawls). Nesting surveys should begin **shortly after sunrise**. Because of potential disturbances to nesting females and the difficulty of locating crawls in the dark, nesting surveys may not be conducted during the night unless specifically authorized by SCDNR.

Surveyors should move along the beach at the level of the latest high tide line. Upon discovery of a crawl, surveyors shall determine whether or not the crawl was a nesting or non-nesting emergence. Probing a nest is allowed to determine the exact location of the egg chamber only if SCDNR personnel or another experienced surveyor has trained the surveyor and possesses a current **Letter of Authorization (LOA)** under a principal permit holder. Dig down, **only with hands**, until the top eggs are felt, to verify the exact location of the chamber. Shallow nests may result in some eggs being punctured. If this occurs, remove all broken shells and clean off the albumin and yolk from the adjacent eggs. Once the clutch is found, re-bury it with moist sand and gently pat the sand surface above the eggs with your hand. Replace the dry sand over this area to the depth present before you began.

After each crawl is documented, the track should be marked to avoid duplicate reporting. This may be done by use of flagging, sweeping ones feet across the track or crossing the upper part of the track with a survey vehicle.

All permit holders approved to conduct nesting surveys may also relocate nests laid in poor sites (too low on beach or near dune crossovers), determine hatching success, and evaluate nest depredation without these activities being specifically listed on the permit. Hatcheries or non-self-releasing screens may not be utilized unless specifically stated on the permit.

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MARKING NEST LOCATIONS

Marine turtle nests need to be marked so that they can be located for nest inventory or protected from hazardous activities such as vehicle or heavy foot traffic. The type of beach (developed or remote) will determine the best techniques for marking nests. Please keep in mind when driving stakes that some undiscovered clutches might be present on the beach. Use flags or stakes with caution.

To identify a nest area so that activities are directed away from the nest site, delineate with markers the entire disturbed area where the turtle covered. Use three or four stakes to mark an area around the nest. These stakes should extend about 36" above the sand. Be sure that the egg chamber is located in the center of this area. Surveyor's ribbon or rope should be tied from the top of one marker to another to create a perimeter around the nest site. On low density nesting beaches, an official SCDNR sign can be located seaward of the nest site. The nest-identifying number and the date the nest was laid can be printed on the wooden post.

Nests can also be marked by measuring the exact distance from the precise clutch location to two separate marking stakes on the dune, one landward of the other, so that a straight line between them is pointing directly toward the location of the clutch (like sighting down a rifle barrel).

If concealment of nests is desired, measure the exact distance and direction with a compass to two separate marking stakes on the dune, hidden among the vegetation. If one marking stake is discovered and removed there is still one remaining.

Whatever method a particular project decides to use is fine, just as long as it is uniform among all workers. For instance a project may simply choose to place the marking stake 3' seaward of the clutch.

On beaches where removal of marking stakes by the public is a potential problem, an additional stake, driven deeply and hidden from view, should be placed a measured distance landward of the others. As added insurance, an aluminum strip can be buried hand-deep and 24" from the clutch location in a standardized direction. This metal marker can be found later with a metal detector.

NEST RELOCATION

Moving marine turtle eggs may create adverse impacts. Movement alone is known to kill developing embryos by rupturing delicate membranes that attach to the top of the egg. We also know that the incubation environment greatly influences the developing embryo and that nest relocation can involve the transfer of eggs from an appropriate environment to an inappropriate one.

Nest relocation must be considered a management technique of last resort and only if the likelihood of the nest surviving to hatch is nil. The most desirable alternative is to eliminate the problems that prompt relocation of the nest. Normally, the only situation that justifies nest relocation is when a nest is laid seaward of the debris line marking spring high tide. If foot traffic is heavy, a nest can be roped off so that pedestrians avoid it. If a nest is laid near a light that may disorient the hatchlings, the light should be kept off or shielded. **Lighting problems are not a valid reason to relocate nests.** If mammalian predators threaten a nest, it should be screened with a self-releasing screen. Use of hatcheries must be approved by SCDNR.

Use the following decision-making protocol when evaluating relocation:

Question 1: Will the nest be destroyed in situ?

If NO: No action required. Leave nest where it was deposited.

If YES: Go to question 2

Question 2: Can the nest be moved **directly** inland to a stable dune?

If YES: Move to new location directly inland.

If NO: Move to next best available site **closest** to original nest location.

If a nest requires relocation, it should be moved as early in the morning following its deposition as possible. After deposition, the potential for movement-induced mortality in marine turtle eggs increases rapidly. **Eggs should be moved no later than 9 AM** (turtles may nest as early as 9 PM the preceding night). To relocate a nest, find the location of the egg chamber by gently probing with a tapered, T-handled dowel. Once the eggs are located, carefully remove the sand from around the top eggs. Individual eggs should be gently lifted from the egg chamber and placed into a rigid container with a 2"-3" layer of moist sand on the bottom. When moving eggs, be sure to maintain each egg's original orientation; do not rotate eggs in any direction and avoid any abrupt movements. As eggs are placed in the container, be sure that they do not roll. When all eggs are in the container, cover them with a layer of moist sand. Note total number of eggs laid and number of eggs found broken during probing.

Find suitable beach habitat nearby that is successfully used by nesting turtles.

Avoid relocating nests near inlets, as hatchlings will be swept into the marsh by incoming tides. Be sure that the new nest site is above the spring high tide level and is not in dense vegetation. Prior to removing eggs, dig a new egg chamber to the same depth, size and shape of the original. The shape should resemble an inverted light bulb. (The cockleshell is a good instrument to round out the bottom of the nest if you use posthole diggers). Relocate the eggs into the new egg chamber by transferring them one at a time while continuing to maintain each egg's original orientation. Dry sand should not be allowed to fall into the egg chamber. After all the eggs have been transferred into the new egg chamber, cover them with the moist sand excavated from the hole and gently pat the sand surface above the eggs with your hand. Replace the dry sand over this area to the depth present before you began. The relocated nest can then be marked and later evaluated for nest success. Nests in danger of being completely eroded away by high tides can be moved to safer areas anytime during incubation, **with prior permission.**

**DO NOT: Clear dune vegetation
Restructure the dune profile
Remove eggs from the beach environment**

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NEST SCREENING

When a nest is at risk from mammalian predators (e.g., raccoons, foxes, etc.), the eggs and pre-emergent hatchlings may be protected by placing a self-releasing screen over the nest. The screens used for this purpose are typically 4' X 4' pieces of 2" X 4" mesh welded wire (do not use metal screen with a smaller mesh size as it is likely to trap emerging hatchlings). This type of screen is large enough to keep mammalian predators out, yet it allows hatchlings to escape from the nest unaided. The screen must be centered exactly over the egg chamber to make it less likely that mammalian predators will burrow to the eggs from the side of the screen and to make sure that anchoring stakes placed along the edge of the screen will not enter the egg chamber.

To find the location of the egg chamber within the body pit, use the method described under NESTING SURVEYS. Once the top eggs are located, use moist sand from a similar depth to re-cover the eggs. Dry sand should not be allowed to fall into the nest cavity. Once the egg chamber is re-covered with moist, then dry sand to the original level, mark the center of the egg chamber with a piece of marshgrass. Be sure that this marker is not inserted into the egg chamber. Level the surface of the sand in a 4' X 4' square centered on your temporary marker so that the screen will lay flat. Place the screen on the smoothed sand and work it back and forth until it is not showing. Remove the temporary marker. Using stakes, secure the four corners of the screen. You may use tent stakes or make your own stakes of wood, PVC or some other durable material. The corners of the screen should be well away from the egg chamber. Place about two inches of sand on top of the screen after anchoring so that the wire is well covered. Maintain screens just one to two inches below the surface of sand if sand accumulates. Some mammalian predators will not investigate or attempt to dig into a nest if they do not notice the wire. If predators in your area are very persistent and dislodge screens with only four stakes, try using eight stakes and place the four additional stakes midway between the corners. If stakes are easily dislodged, longer or thicker stakes may be needed.

Plastic screening is recommended, and white is the preferred color.

Sometimes raccoons will dig into the top layers of eggs through the screening. A smaller square, 1'x 1' of hardware cloth can be added on top to prevent this. This additional screening must be removed at 45 days incubation to avoid hatchlings being trapped. Another method involves elevating the original screen approximately 2" above the sand's

surface at 45 days incubation. This can be accomplished by putting driftwood under 3

edges of the screen, leaving the seaward edge open.

In some situations, if screened nests are not marked with an appropriate sign, a beach user is likely to discover the screen and think that it should not be on the beach and pull it up. Marking screened nests may also be necessary to prevent people from inadvertently injuring themselves on the screen or on any stakes.

Because stakes and/or screens may become partially or completely dislodged, they should be checked regularly. During the period of anticipated emergence, screens should be checked for sand accumulation. After 45 days of incubation, screens should be checked each morning for signs of hatching activity and just in case hatchlings become trapped by them. All screens shall be removed from the beach after hatchling emergence is completed.

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NEST CAGING (SELF-RELEASING)

When a nest is at high risk from predators (e.g., raccoons, foxes etc.), the eggs and pre-emergent hatchlings may be protected by placing a self-releasing cage over the nest. Restraining cages shall provide enough room for all hatchlings to completely emerge from the sand and shall have, on the seaward side of the cage, an area from which hatchlings can readily escape. If hatchlings are to escape through a wire screen, the mesh size shall be no smaller than 2" X 4" (making sure the long edge, 4 inches, is parallel to the sand). If hatchlings are to escape through an opening in the cage, the opening should be 2 inches high and extend along the entire seaward side of the cage. Cages shall be centered exactly over the nest cavity to make it harder for mammalian predators to reach the eggs if they put their paw through the mesh. Make sure that any anchoring stakes places along the edge of the cage will not enter the nest cavity.

The first step in caging a nest is to find the location of the nest cavity within the body pit. Follow the directions under NESTING SURVEYS. Most cages are anchored by burying the outward pointing flanges (see illustration) one half to one foot under the sand's surface. Enough of the cage should be above the sand surface to deter raccoons from reaching eggs through the mesh. Center the cage over the nest cavity and trace the edges of the cage in the sand. The cage should be oriented so that the escape opening is facing the sea. Remove the cage and carefully dig a trench along the tracing of the edges of the cage. Place the cage into the trench and fill the trench with sand. When completed, the sand around the cage and over the nest cavity should be at the original level. If stakes are used to secure a cage, make sure they will not enter the egg chamber.

Because cages may become partially or completely dislodged, they should be checked

regularly. **Self-releasing cages should be checked each morning during the period of anticipated hatching, just in case some hatchlings have become trapped. All cages should be removed from the beach after hatchling emergence is completed and nest success evaluation has been completed.**

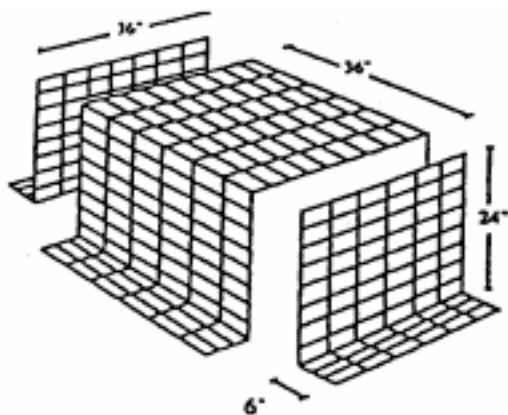


Figure 1. Example of a self-releasing cage. The cage is constructed of 2" x 4" welded utility wire. Hatchlings are able to escape through the mesh of the wire.
(Cage design courtesy of The Conservancy.)

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RESCUE OF DISORIENTED HATCHLINGS

This activity involves retrieving disoriented hatchlings and ensuring that they reach the water safely. Due to the short duration of the hatchling frenzy period, hatchlings should be released under the conditions that afford them the best chance of survival. There are two situations of hatchling rescue and release and each will be handled differently in order to best meet this goal.

1. All hatchlings found during darkness **must be released immediately**, the same evening they are found. A flashlight may be used at the water's edge if you come across a disoriented hatchling in progress. Keep the light at least 5 feet above the water and turn it off periodically. This will lead the remaining hatchlings in the right direction, while the surrounding area is searched for lost turtles.

2. Hatchlings that are found disoriented during daylight surveys are likely to be dehydrated and weak and will survive better if given a chance to rest in a damp environment. Small Styrofoam or plastic coolers lined with damp sand work well as temporary holding containers. A damp towel should be placed loosely over the top of the container to provide a dark, moist environment. Once placed in a holding container, hatchlings should not be handled or disturbed until they are ready for release. Activity

causes increased expenditure of limited energy stores. Release the hatchlings that night

at hard dark about 25 feet from the ocean and monitor their entire trek to the water.

Hatchlings must not be held in water! If disoriented hatchlings require further holding, please contact the Marine Turtle Program Coordinator for transfer to an authorized staff.

DO NOT: **Build runways without prior permission**
 Remove or cut dune vegetation
 Assist hatchlings unless they are deformed
 Remove hatchlings from the beach environment

LIGHTING VIOLATION REPORTS

Report disorientation events to SCDNR and to US Fish and Wildlife Service Law Enforcement (843-813-8821) as soon as the event is discovered. Follow up by completing a Sea Turtle Disorientation Report form and mailing it to SCDNR as soon as possible. It is very important that SCDNR be informed of all disorientation events as they occur. Include number of hatchlings disoriented and document with photographs if possible.

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HATCH SUCCESS EVALUATION

Because marine turtle eggs are subjected to a variety of incubation environments, including many that are affected by human activities, it is very important each nesting season, and on each managed nesting beach, to have some idea of how many eggs actually produced hatchlings. This activity, known as hatch success evaluation, involves the excavation of a nest and a determination of the fate of each egg.

Hatch success evaluations may only be conducted **either 75 days after the nest was deposited or 3 days after the first emergence**, whichever occurs first. These are minimum waiting periods. If a nest has been subjected to cooler temperatures (tidal inundation, rainfall, shading, cool fronts, etc.), nest success evaluations should not be conducted until 80 days or 96 hours after the first emergence. **Digging into a nest before all the hatchlings have emerged exposes them prematurely and is likely to adversely affect their ability to survive. It is vital to allow all hatchlings to emerge naturally before excavating the nest.**

On higher density nesting beaches (greater than 120 nests per year), nest success evaluations do not have to be conducted on every nest, but a minimum of 25% is

required. Useful information may be obtained by evaluating a sample of nests; however, the sampling technique must be devised to best represent the entire nesting season and nesting beach. The easiest way to do this is to mark for evaluation every other nest, or every fourth nest, etc. For this sampling technique to succeed, a sampling plan based on the number of nests expected has to be devised before the nesting season begins. Once a sampling plan is devised, it has to be followed throughout the nesting season. If needed, the SCDNR's marine turtle program staff is available to help develop a valid sampling plan. Beaches with under 120 nests per season should plan to excavate all nests.

When a nest marked for evaluation is completely depredated or destroyed (all eggs lost), record this (no further evaluation is necessary). This nest is a very important part of your sample to accurately determine overall nest success; **do not select another nest as a replacement.** When a nest marked for evaluation is partially depredated, remove the depredated eggs. Cover the nest cavity with moist sand, and return the site to its original condition. Record the nest as partially depredated along with the number of eggs that were depredated. **If the number of eggs laid is unknown, use the clutch size of 120 eggs in your calculations.**

To conduct a nest success evaluation, dig down into the nest chamber with your hands until you reach eggs or eggshells. Do not use shovels or other tools, but you may want rubber gloves. If you encounter live hatchlings **before** reaching any eggs or eggshells quickly cover the nest cavity with moist sand and return the site to its original condition. Wait at least 3 days before excavating again.

Carefully remove the contents of the nest and place them in a pile on the sand or in a tray for easier sorting. Separate the contents into the following **FOUR categories**: hatched eggs (=eggshells), live hatchlings, dead hatchlings, and unhatched eggs. Dead pipped eggs are considered unhatched eggs. An egg is not considered hatched until the hatchling actually leaves its egg. Each item found in the nest should fit into one and only one, category. (Do **not** include live or dead hatchlings that are found on the surface of the beach as they are already emerged from the nest.)

For *in situ* nests determine and record the number of eggs that hatched by carefully counting the eggshells. (The total number of eggs laid should already be known for relocated nests.) Count each eggshell that is more than 50% complete as one hatched egg and disregard the smaller pieces. Be sure that all the eggshells are completely separated from each other. Record the number of live hatchlings, dead hatchlings, unhatched eggs, and egg shells.

Hatchlings found at the bottom of nests during daylight excavation shall be released immediately on the beach a short distance from the water. Someone should monitor the hatchlings to ensure gulls or ghost crabs do not take them. Under natural conditions, (where kind humans do not excavate nests) these hatchlings would not have survived. They are not as fit and may even have genetic defects that prevented them from leaving the nest.

After completing the nest success evaluation, the nest contents should be reburied within the original nest cavity, unless a hatchery is being used. Research has shown

that the leftover nest contents contribute to the growth of dune plants. Leave the marker in case raccoons dig up the contents. In this way the unearthed contents will not be confused with a “wild” nest that has been depredated.

If you find live hatchlings in pipped eggs, hatchlings with yolk sacs or any viable looking eggs, do the following. Rebury the contents of the hatched nest at the bottom of the egg chamber. Add a layer of clean moist sand. Place the viable eggs and hatchlings on this layer of sand and then add more clean, moist sand over them. Cover the area with dry sand and keep the nest location marked and screened if necessary. These turtles may never emerge due to unknown genetic or physiological reasons. After a reasonable time (one week), excavate the nest and complete the evaluation.

There are two ways to measure the success of turtle nests. First, is the number of **live hatchlings** that emerge from the nest out of the **total eggs** deposited (hatching success). Second, is number of **nests** that produce hatchlings out of the **total nests** laid (nest success). Calculate each separately for **1) in situ, 2) relocated and 3) total for the season.**

HATCH SUCCESS RATE FORMULA

$$(\text{Total \# live hatchlings} / \text{Total \# eggs laid}) \times 100$$

NEST SUCCESS RATE FORMULA

$$(\text{Total \# nests hatched}^* / \text{Total \# nests laid}) \times 100$$

[*Nests with 10% or greater hatch success]

Some nests that are laid at the end of the season are subjected to very cool temperatures in the fall, and may never hatch even though the eggs contain live embryos. If these nests incubate over 90 days, record them as unhatched.

DO NOT: Excavate hatchlings prematurely
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PUBLIC EDUCATION AND RELATED MATERIALS

This section applies to all information distributed through the media, slide presentations, newsletters, websites, and public posters and signs by projects in regards to sea turtle conservation and the activities carried out under the permit issued by SCDNR.

Sea turtle conservation requires long-term public support over a large geographic area. The public must be factually informed of the issues particularly when conservation measures conflict with human activities such as commercial fisheries, beach development, and public use of nesting beaches. Public education is the foundation upon which a long-term conservation program will succeed or fail.

It is the responsibility of the projects to ensure that information provided to the public in any form is biologically accurate and in keeping with the SCDNR Guidelines.

It is also important to ensure that there is **correct representation** when providing public information. The authorship of any educational materials rests with the respective project. **Do not act as an agent or employee of SCDNR** when providing public information. (See section on INFORMATION FOR MARINE TURTLE PERMIT HOLDERS for more information.)

In an attempt to ensure that material is factual and up to date, SCDNR is willing to review any educational materials developed and distributed by the projects. SCDNR would also like to develop a catalog of all the educational materials produced by the projects, including newsletter and media articles. Include copies of any such materials with the annual report sent to SCDNR at the end of each season.

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PUBLIC AWARENESS TURTLE WATCHES

Observing nesting sea turtles and hatchling emergence at night provide valuable opportunities for education and training. However, turtles are sensitive to disturbances, and therefore turtle walks and watches must be conducted with care. The following are the **minimum** guidelines required by SCDNR. Projects can implement more stringent guidelines if they so choose. Advise SCDNR if guidelines other than those listed here are to be used. These guidelines apply only for loggerhead turtles. Other species should be reported immediately the next morning so that SCDNR can verify the tracks.

Turtle watches may not be commercialized (conducted for profit). Fees may only be charged by non-profit organizations to cover legitimate costs incurred in sea turtle conservation efforts.

Observing nesting turtles:

Programs presented prior to walking on the beach are highly recommended and must explain the procedures to be followed during the experience, as well as accurate, updated information on sea turtle conservation and biology. **Group size is not to exceed 10 persons per group. State Parks ONLY will have a limit of 30 persons per group.** Turtle watch tour guides are encouraged to inform persons who are out on their own looking for turtles of the need to be part of a permitted group. This is an opportunity to educate persons who might otherwise disturb nesting turtles. Participants must stay with the group and remain quiet. Tour guides are responsible for maintaining group control at all times.

Flashlights may be used to ensure safety while gaining access to and from the beach. Once on the beach, lights are restricted to tour leaders. The use of red filters on flashlights is recommended. Improper use of flashlights can deter other nesting females. **One** guide should find the turtle and determine what stage of nesting she is in. Only if she is dropping eggs or covering can people approach and form a semi-circle around

the rear of the turtle at a distance of two meters. A roped off area may be necessary to prevent onlookers from creeping too close. Semi-circles with children sitting in front of adults allow for maximum viewing. When the turtle is dropping eggs, the tour guide can use a low intensity flashlight to illuminate the back of the turtle and move sand so that the eggs are visible. A single egg may be removed from the nest by a staff member to show the participants. The egg must be returned to the nest before egg deposition is completed.

When the turtle is covering, light touching of the turtle's shell is permitted. This must cease if it appears to alter the turtle's activities. A low intensity flashlight can be used to illuminate the back of the turtle in order to observe the covering process. Once the turtle has finished covering and starts towards the water, all lights must be turned off to avoid disorienting her. People must stand behind the turtle once she starts towards the water.

No flash photography is allowed.

A summary of the guidelines used by the project for turtle watch programs, any problems experienced, and the number of excursions must be included in the annual project report to SCDNR at the end of the year.

Observing hatchling emergence:

This activity applies principally to permit holders whose areas are public beaches, such as state parks, or resort areas. Under natural conditions, marine turtle hatchlings emerge in darkness. Although rain or overcast skies can induce daylight emergences, the overwhelming majority of hatchlings emerge in the dark.

Nests are not to be dug into at any time, neither during daylight or dark, to see if hatchlings are "ready" to emerge. Nests may only be dug into under the guidelines described in NEST SUCCESS EVALUATION.

Hatchlings shall emerge naturally and shall be allowed to crawl to the water on their own.

When an emergence is taking place, the public must stand behind the nest forming a V towards the water which is delineated with a roped off area at a minimum of 2 meters from the path of the hatchlings. Hatchlings must be allowed to walk freely to the water without disturbance. The public must be managed in a strict manner so as to avoid hatchlings being trampled. A staff member can stand in the surf with a single low intensity flashlight pointing up the beach to maintain hatchling orientation to the water as well as assist the public in viewing the hatchlings. A quick check of the release area with a small flashlight a short time after release will ensure that all hatchlings have reached the water.

A summary of the guidelines used by the project for hatchling night programs, any problems experienced, and the number of excursions must be included in the annual

project report to SCDNR at the end of the year.

Conducting turtle watches, disturbing sea turtles, and handling eggs or hatchlings without a valid permit is unlawful.



Equal Opportunity Agency